



Captiva XI200XUSB USB3.0

Dual HD Capture Box

Users Guide

Rev 1.0
2013/03/20

Contents

1. Preface.....	4
2. Minimum Hardware Configuration	4
3. Recommended Hardware configuration.....	4
4. Software Requirement	4
5. Hardware and Driver Installation	4
6. Connection of Input.....	5
6.1. DVI-D/DVI-I signal	5
6.2. HDMI signal	5
6.3. VGA signal (RGB-HV)	6
6.4. Component signal (YPbPr).....	6
6.5. Composite signal (CVBS).....	6
7. Video Capture Device Instruction	7
7.1. the Methods for Displaying “Filter property dialogue” in Common Software. Error! Bookmark not defined.	
7.2. Advanced Settings	9
7.2.1. Input Signal.....	10
7.2.1.1. Input Interface	10
7.2.1.2. Signal Status.....	10
7.2.2. Image Adjustment.....	10
7.2.3. Image Output.....	11
7.3. “Color Adjustment” Instruction.....	12
8. Video Format Setting	12
8.1. The Methods of Displaying “Filter Output Pin” by Regular Software.....	13
8.2. Video Format Instruction	13

9. Audio Capture Device Instruction.....	13
9.1. Windows XP, Windows 2003.....	14
9.2. Windows Vista, Windows 7, Windows 2008, Windows 2008 R2.....	14
10. Compatibility with Software.....	15

1. Preface

The Captiva XI200XUSB is featured with small form factor and superior performance. It can simultaneously capture dual High-Definition video signals. The HD input can connect with HDMI, DVI, YPbPr, VGA (RGB-HV), or composite video broadcast signal (CVBS).

The users guide will provide you with necessary instruction for proper use of the Captiva XI200XUSB capture box.

2. Minimum Hardware Configuration

- Intel Core Solo
- 1G of RAM
- Available USB 3.0 interface

3. Recommended Hardware configuration

- Intel Core i7
- 2G RAM or above
- Available USB 3.0 interface

4. Software Requirement

They operation systems shall be any of the following (x86 version or x64 version), and with the Discover Video Multimedia Encoder (DVME):

- Microsoft Windows XP
- Microsoft Windows Server 2003
- Microsoft Windows Vista
- Microsoft Windows Server 2008
- Microsoft Windows 7
- Microsoft Windows Server 2008 R2

5. Hardware and Driver Installation

Please download the Captiva XI200XUSB driver, and with the device connected to your computer, run the installer.

6. Connection of Input

6.1. DVI-D/DVI-I signal

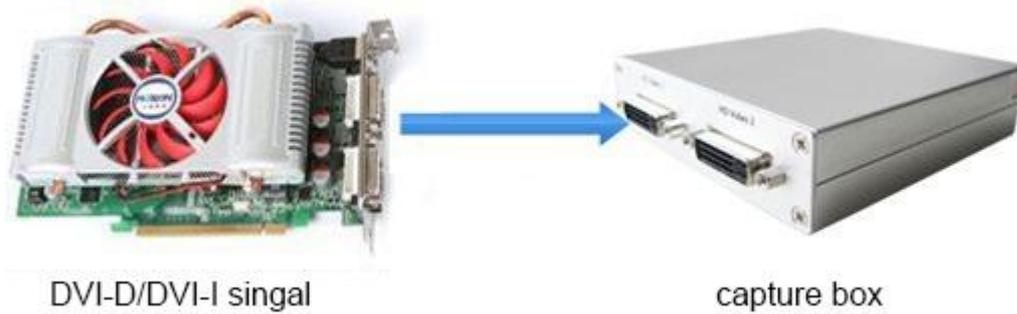


Figure 1 , DVI signal connection sketch map

6.2. HDMI signal

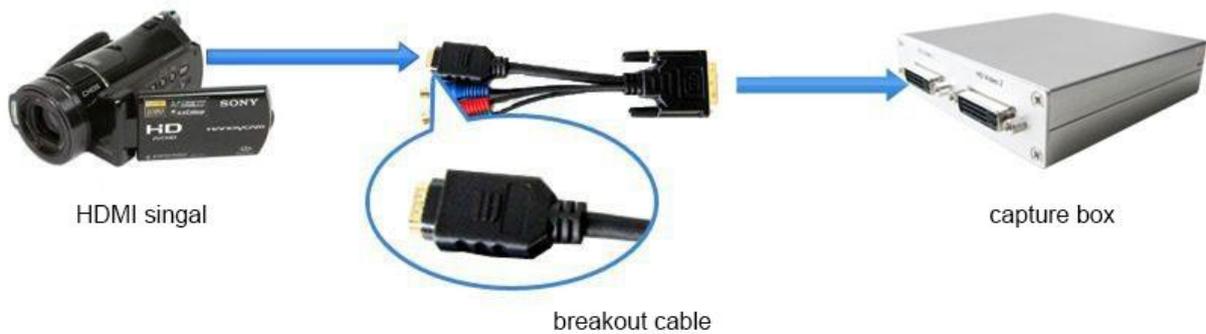


Figure 2 , HDMI signal connection sketch map

6.3. VGA signal (RGB-HV)

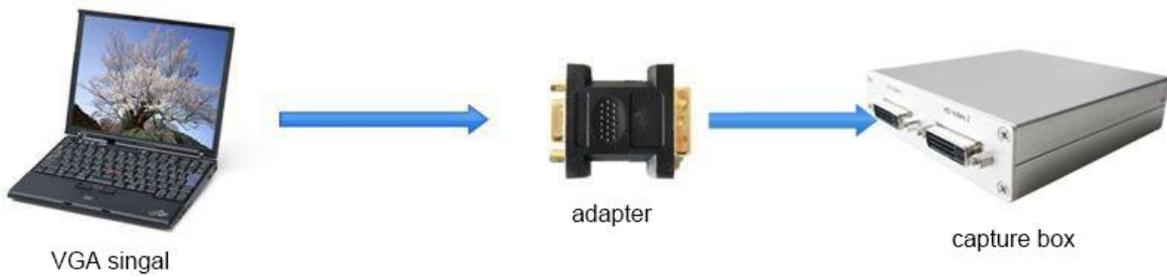


Figure 3 , VGA signal connection sketch map

6.4. Component signal (YPbPr)

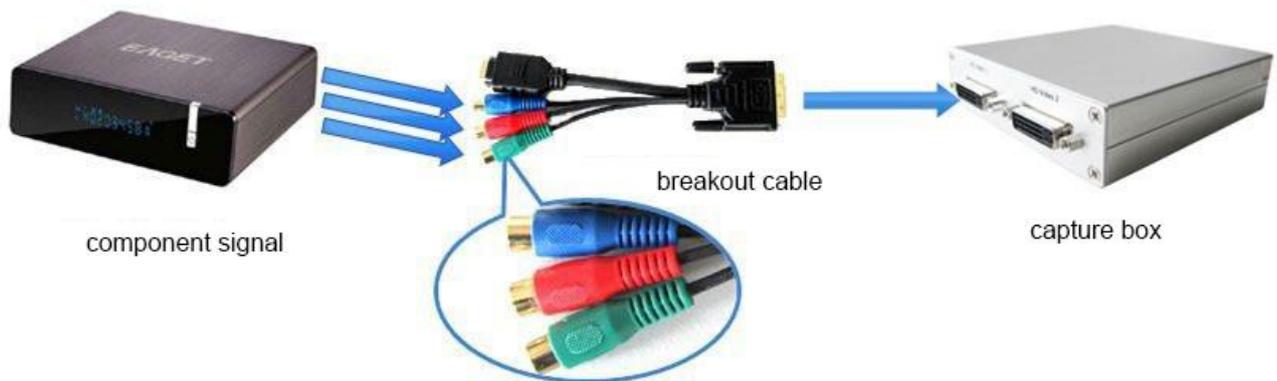


Figure 4 , component signal connection sketch map

6.5. Composite signal (CVBS)

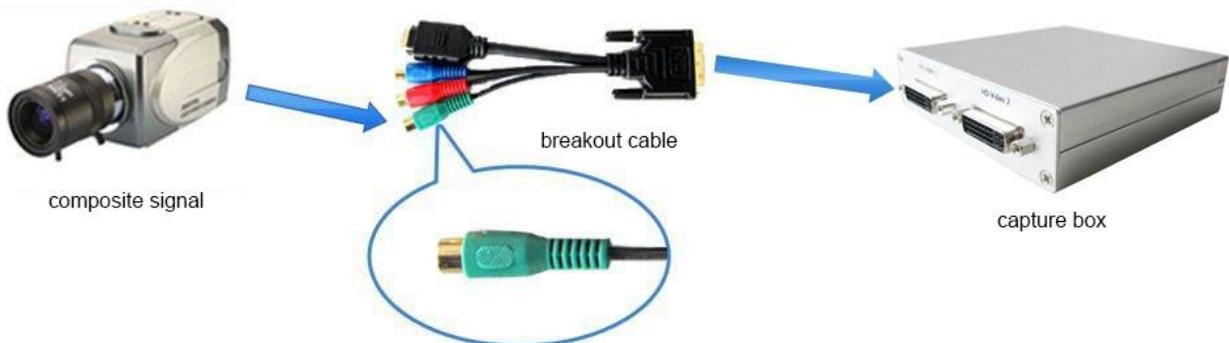


Figure 5 , composite signal connection sketch map

7. Video Capture Device Instruction

Captiva XI200XUSB is based on Microsoft DirectShow interface, two HD video captures will be available in the operating system after installation:

- HD Video 1 (XI200XUSB Box 1)
- HD Video 2 (XI200XUSB Box 1)

XI200XUSB not only offers basic options, such as image brightness, contrast, hue, saturation, Gamma and so on, but also provides additional enhanced options for setting function. You can use "Filter Properties dialog window" in DirectShow to set these options. You may access the properties from DVME video device configuration, Native Device Settings.

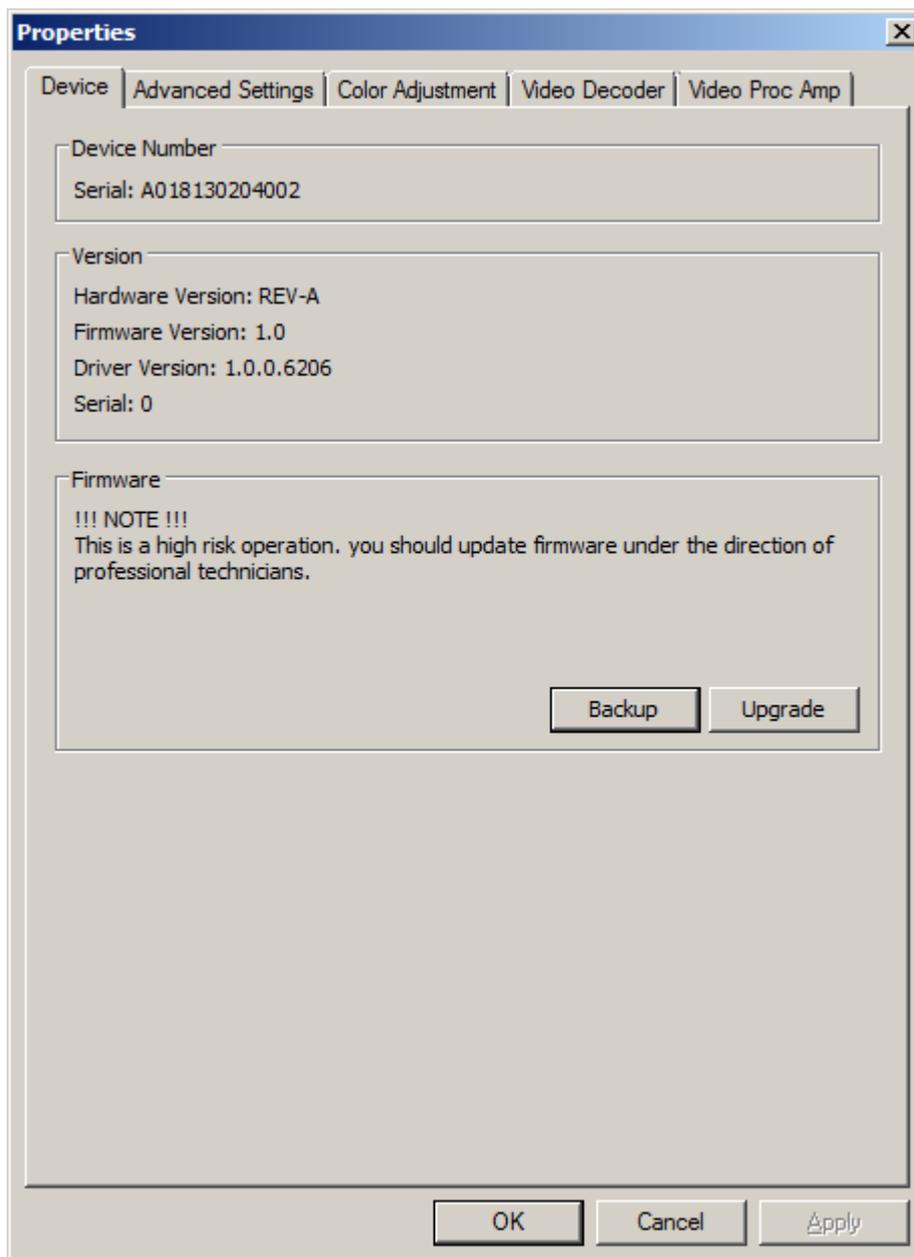


Figure 6 , Device Property

- **Device Number:** display serial of card, the number should be accorded with the barcode on the card.
- **Version:** display related version number, versions include hardware version, firmware version, driver version, and device serial. You may request user to provide relevant version number when you solve problems.
- **Firmware:** if new features need to upgrade the firmware, we should first backup it and then upgrade the firmware.

Note: The different versions of the firmware and hardware cannot be mixed together, or

else it will get error when upgrade. Additionally, do not power outage in the process of firmware upgrade, otherwise it will lead to upgrade firmware fail, then the Capture Adapter will not work. You have to return the Capture Adapter back to factory for being repaired.

7.1. Advanced Settings

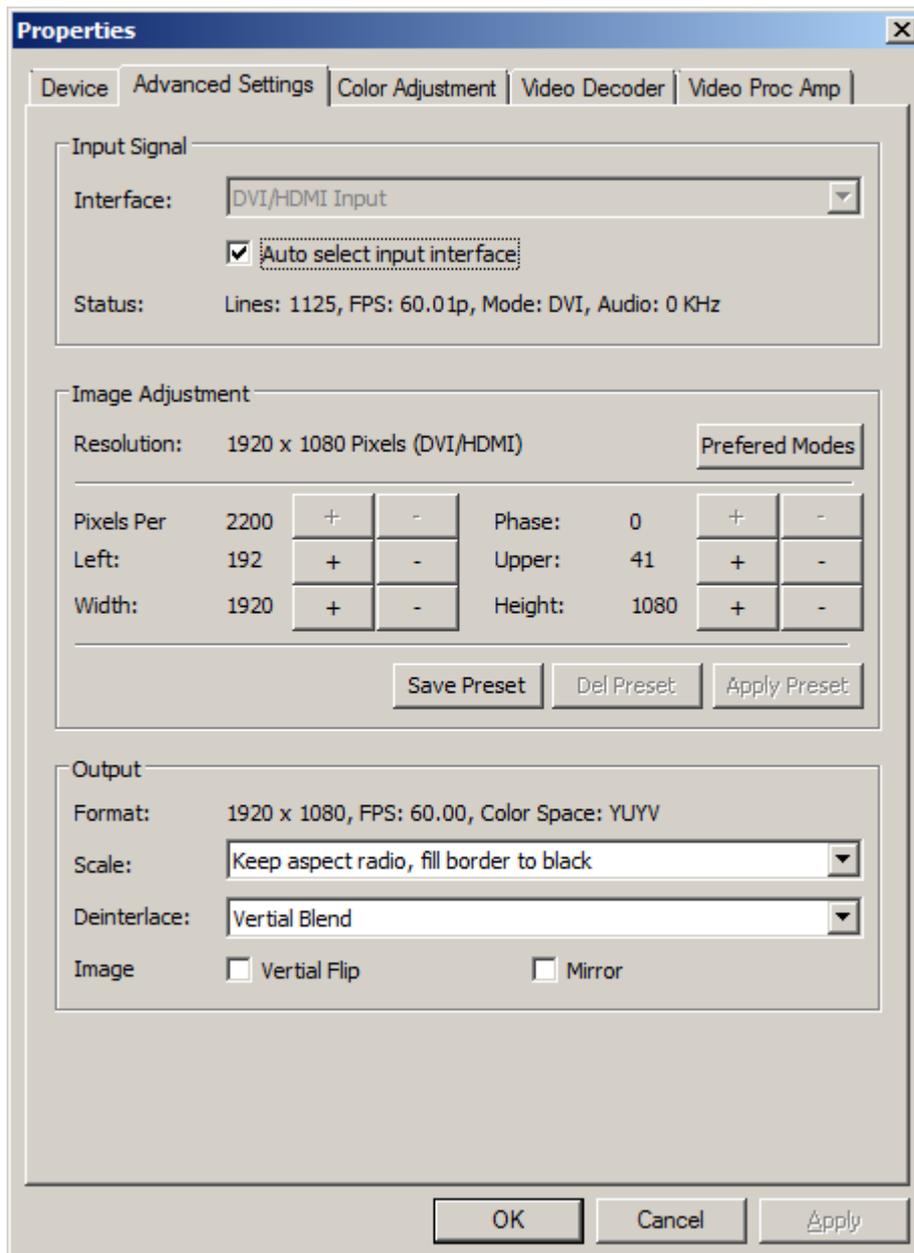


Figure 7 , Advanced Setting

7.1.1. Input Signal

7.1.1.1. Input Interface

By default, check "Auto Select Input Interface" , supporting input interface includes: DVI / HDMI input, VGA input, YPbPr input, composite video input (CVBS).

Notes: when "Auto Select Input Interface" is selected, if HDMI and YPbPr input interfaces both have signal access, then HDMI input is preferred. You must select CVBS input manually, otherwise it will be identified as YPbPr input. Signal must access Y interface (green RCA interface).

7.1.1.2. Signal Status

The relevant parameters of signal are shown, such as total number of rows, frame rate (p is progressive scan, i is interlaced), mode, audio frequency.

7.1.2. Image Adjustment

By default, image is auto, but it cannot achieve desired effect, such as black border, unclear image, picture which needs clipping, it must be adjusted manually. After adjustment, you can save the preset. Then you can apply preset values without adjustment when the same signal accesses.

Take the VGA adjustment for example:

- **Black border adjustment:** Through adjust left margin and top margin to eliminate black border. Every time you can adjust 1 pixel.
- **Text definition adjustment:** adjust line number of samples and sampling phase to achieve desired definition of text.
- **Select correct resolution quickly:** the capture card cannot identify correct resolution with the same number of rows, such as 1024x768, 1280x768, 1360x768, 1368x768, lines are all 768, auto may be all identified as 1024x768, then click "auto" , a list will pop up as shown below, user can select the correct resolution.

1024 x 768 Pixels (GTF Standard)
1280 x 768 Pixels (GTF Standard)
1360 x 768 Pixels (GTF Standard)
1368 x 768 Pixels (GTF Standard)

Figure 8 , the pop-up menu of "Auto Adjustment"

- **Image clipping:** Through adjusting image width, height, left margin and top margin to achieve desired requirement. Increasing/reducing width of image starts from right, increasing/reducing height of image starts from bottom.

Skills of image clipping as follows:

1. Set scale "fill output image" to confirm whether clipping adjustment is appropriate.
2. Cut off image left: firstly increase left margin, then reduce image width.
3. Cut off image right: reduce image width.
4. Cut off image top: firstly reduce image height, and then increase top margin.
5. Cut off image bottom: reduce image height.

After image adjustment completes, click "**Save Preset**" to save current adjustment; click "**Del preset**" to delete preset you saved; click "**Apply Preset**" to apply the saved preset to current settings.

7.1.3. Image Output

Display output format of current image, set image zoom scale, de-interlace and image flipping.

- **Format:** display output image size, frame rate, color format.
- **Scale:** provide three ways, full output image and keep aspect ratio, fill border to black and keep aspect ratio, clip border.
- **De-interlace:** vertical blend, motion adaptive. Motion adaptive is better, but it takes up high CPU usage, also you can select "disabled".
- **Image:** offer two ways, vertical flip and mirror.

7.2. "Color Adjustment" Instruction

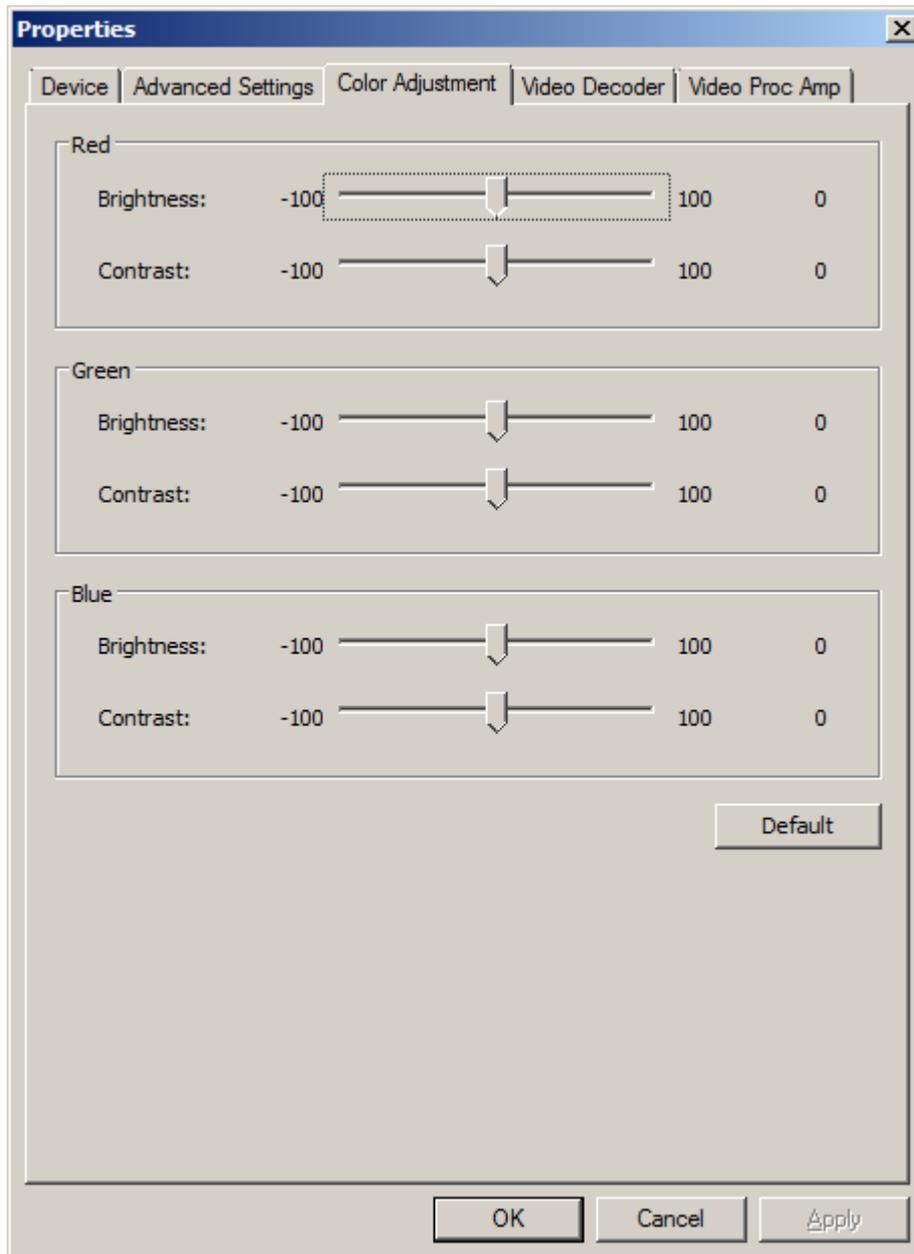


Figure 9 , HD device "Color Adjustment"

Here can be adjusted R, G, B brightness and contrast separately, click "Default" to restore default values.

8. Video Format Setting

The driver re-defines the "filter output pin" , and it supports resolutions of any size, and supports special resolutions.

8.1. The Methods of Displaying "Filter Output Pin"

- Select "HD Video 1 (XI200XUSB Adapter1)" in the menu of "Devices", click "Video Capture Pin" in the menu of "Options" and the "**Filter output pin**" dialogue will pop out.

8.2. Video Format Instruction

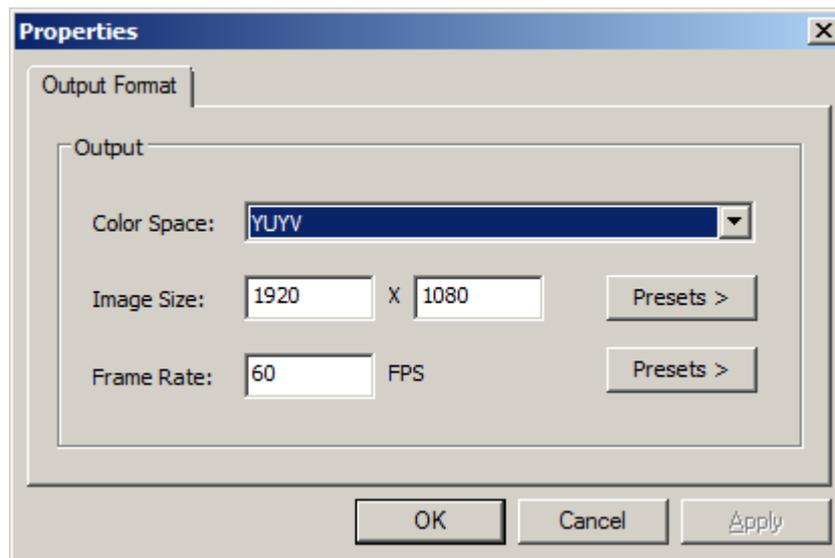


Figure 10 , " Filter output pin"

- **Color:** provide 6 color space, YUYV, UYVY, I420, NV12, RGB 24 Bits, RGB 32 Bits
- **Size:** You can set the size of the output image manually or you can select the output resolution in the "preset". The resolution of the font on the top of preset is the same as the current captured image, which is the best resolution.
- **Frame rate:** You can set the output frame rate manually, or you can select in "preset". If the application has set the output frame rate, settings here will not work. Please start it to recover to the frame rate of the application.

9. Audio Capture Device Instruction

Captiva XI200XUSB is based on the Microsoft DirectShow interface. After installation the relevant audio devices will be added under operating system. Any software which is compatible with DirectSound, DirectShow can use the recording device for capturing sound.

9.1. Windows XP, Windows 2003

The name of the audio capture device in Windows XP and Windows 2003 shows as below:

- HDMI In 1 (XI200XUSB Box 1)
- HDMI In 2 (XI200XUSB Box 1)

Through system "Volume Control" to adjust recording volume, specific steps as follows:

1. In system notification icon area on right corner double-click " " button to pop-up "Open Volume Control" window.
2. Open "Options" menu, select "Properties" menu item.
3. In "Mixer", select "Audio (XI200XE Adapter x)", click "OK" button.
4. Corresponding volume control project will be displayed, this time you can operate volume and "Quiet" according to your requirement.

9.2. Windows Vista, Windows 7, Windows 2008, Windows 2008 R2

The name of the audio capture device in such operating system shows as below:

- HDMI In 1 (XI200XUSB Box 1)
- HDMI In 2 (XI200XUSB Box 1)

Through system "Volume Control" to adjust the recording volume, specific steps as follows:

1. In system notification icon area on right corner right-click " " button, select "Recording devices" in pop-up menu.
2. In the pop-up list which displays recording device, select "HDMI In", click "Properties" button, system will pop up device properties dialog window.
3. In Properties dialog box, select "Levels" property page, then you can operate volume control and "Mute" according to your requirement.

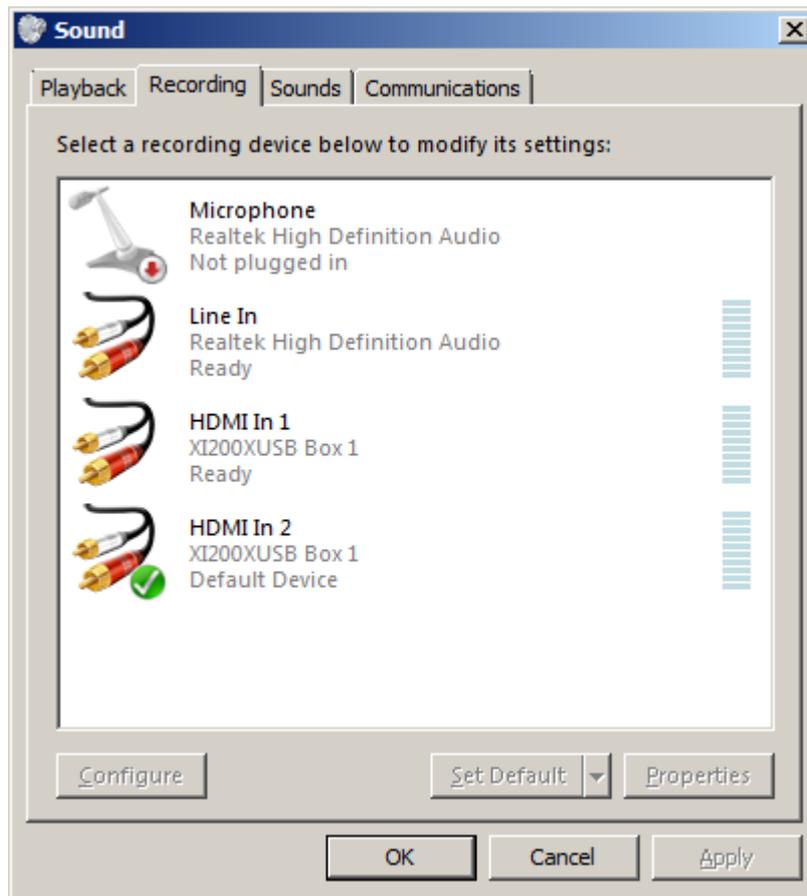


Figure 12 , Windows Vista/7 recording device dialogue

10. Compatibility with Software

XI200XUSB can be compatible with variety of audio and video capture software which is based DirectShow interface, and audio capture software which is based DirectSound interface, and with the award-winning Discover Video Multimedia Encoder, and with Discover Video Multi-Channel Encoder.